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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Attorney Dkt TNL A-1403

Ulrich VOLLATH

Group Art Unit: 3661

Serial No.: 10/696,528

Examiner:


Filed: October 28, 2003

For: Ambiguity estimation of GNSS signals for three or more carriers

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 28, 2004.

June 28, 2004

  
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Bruce D. Riter, Reg. No. 27,379

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DISCLOSURE STATEMENT  
UNDER 37 CFR §§1.56, 1.97 & 1.98

COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is a five-page Information Disclosure Statement by Applicant, as a substitute for form PTO-1449, with copies of the documents listed therein.

Attention is directed in particular to the document by U. Vollath entitled "Decentralized Floating Solution in Trimble Total Control 2.7, Trimble Terrasat GmbH Internal Report, Issue 1, Revision 1, unpublished (seven pages). Though the document is unpublished, it describes a dual-frequency floating solution implementation in Trimble Total Control 2.7 (TTC 2.7) as released in January 2002, and should be considered as prior art with respect to this patent application.

This Disclosure Statement is believed to be submitted before the mailing date of a first Office action on the merits. Pursuant to 37 CFR §1.97(b), Applicant respectfully requests that the enclosed documents be considered.

Applicant further requests that the enclosed document be made of record for printing on any patent which may issue from this application, that the enclosed substitute for Form PTO-1449 be initialed to indicate that the document has been considered, and that a copy of the initialed substitute for Form PTO-1449 be returned to the undersigned.

If this Disclosure Statement is not submitted prior to the mailing date of a first Office action on the merits, Applicants respectfully request that the enclosed document be considered under 37 CFR §1.97(c) and that the undersigned be notified of any fee due.

June 28, 2004

Respectfully Submitted,



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Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(Use as many sheets as necessary)*

Sheet	1	of	5
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**Complete if Known**

Application Number	10/696,528
Filing Date	28 October 2003
First Named Inventor	Ulrich VOLLATH
Art Unit	2655
Examiner Name	
Attorney Docket Number	A-1403

## U. S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Sheet 2	of 5	Attorney Docket Number	A-1403

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		G. Bierman, Factorization Methods for Discrete Sequential Estimation, Academic Press, 1977 (pages 1-241)	
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		E. Grafarend et al., Generating Classes of Equivalent Linear Models by Nuisance Parameter Elimination- Applications to GPS Observations, Manuscripta Geodetica 11 (1986), pp. 262-271	

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		M. Grewal et al., Kalman filtering: theory and practice using MATLAB, second edition, 2001, John Wiley & Sons, New York (401 pages)	
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		P. Teunissen, The success rate and precision of GPS ambiguities, J. Geod., 74(3/4), 2000, pp. 321-326	
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